



**REAL-time monitoring and mitigation of nonlinear effects in optical **NET**works (REAL-NET)**

**Grant Agreement ID: 813144**

# **1<sup>st</sup> year REAL-NET workshop**

**26<sup>th</sup> February 2020**

**Aston University, UK**



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## 26<sup>th</sup> February 2020, Aston University, Birmingham UK

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**8:45 – 9:15** Arrival, Opening

**9:15 – 9:30** Chairman Welcome

**9:30 – 10:30** Talks on the state of the art in WP (30 min each)

- Network management: planning and control – **Nelson Costa , Infinera Portugal**
- Digital signal processing and system modelling – **Antonio Napoli , Infinera Germany**

**10:30 – 11:00** Coffee break

**11:00 – 12:00** Talks on the state of the art in WP (continue)

- State of the art in amplifiers – **Ian McClean, II-VI Photonics**
- State of the art of ultra wideband modulators – **Gerrit Fiol, Fraunhofer HHI**
- SOTA in III-V-on-silicon lasers – **Günther Roelkens , Ghent University – imec**

**12:00 – 13:00** *Lunch at Conference Aston*

**13:00 – 14:30** Invited Talks (45 min each)

- The future of optical fibre communications: an operator's perspective – **Andrew Lord, BT Group**
- State of the art in digital coherent transmission – **Lidia Galdino, University College London**

**14:30 – 15:00** *Coffee Break*

**15:00 – 16:30** ESRs talks on the progress (Selected)

**16:30 – 17:00** Do's and don't's of an ESR – how to make the most of it – **Md Asif Iqbal** and **Auro Perego**, Aston University

**17:00 – 18.00** Discussion, ESR networking, Closing

**18:30 –** *Dinner*

## External Speakers

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### **Lidia Galdino**

**Lecturer, Royal Academy of Engineering Research Fellow at University College London (UCL)**



Dr Lidia Galdino received M.Sc. and Ph.D. degrees in electronic and electrical engineering from the University of Campinas, Brazil, in 2008 and 2013, respectively. Dr Galdino commenced a lectureship and a Royal Academy of Engineering Research Fellowship in September 2018 on the topic of “Capacity-approaching, Ultra-Wideband Nonlinear optical Fibre Transmission System”, and a co-investigated in the EPSRC TRANSNET programme grant. She previously worked as a Senior Research Associate on the EPSRC UNLOC programme grant. She is Associate Editor of Optical Fiber Technology and part of the Technical Programme Committee for IEEE Photonic Conference (IPC) and Associated Vice President of IEEE’s Women in Photonic. Dr Galdino was a co-recipient of the RAEng Colin Campbell Mitchell Award in 2015 for pioneering contributions to optical communications technology and named as one of the 2017 “Top 50 Women in Engineering under 35” by The Telegraph and Women in Engineering Society which features the U.K.’s top rising female stars of engineering.

### **Andrew Lord**

**Senior Manager of Optical Research at British Telecom**



Andrew joined BT in 1985 after a BA in Physics from Oxford University. He has helped design a wide range of optical network systems and technologies, including long haul subsea and terrestrial DWDM networks. He has been responsible for optical fibre and systems specifications. He currently leads BT’s optical core and access research including optical access, high-speed transmission, Software Defined Networking and Quantum Communications. He has recently initiated BT’s quantum research, with applications in areas such as secure communications, timing and sensing. He regularly speaks at conferences, sits on several organising committees, including ECOC and was Technical Program Chair for OFC 2015 and General Chair for OFC 2017. He is an associate Editor of Journal of Lightwave Technology, is Visiting Professor at Essex University, Senior Member of the IEEE and a Chartered Engineer

with the IET. He is industrial chair of NDFIS (National Dark Fibre Infrastructure). He is a project manager of the EU Horizon 2020 project 'Metro-Haul' researching optical networks for 5G. In the ETN WON project Andre Lord acts as an External Industrial Adviser in WON Industrial Advisory Board.

## **Ian McClean**

### **Product Manager, II-VI Photonics**



Ian McClean is Product Manager for II-VI Photonics in Paignton, UK, where he specialises in the development of ROADM products for optical networks. With 23 years of experience in optical amplifier design for Nortel Networks, Bookham Technology, and Oclaro, Dr. McClean is a respected leader in the field and has written multiple patents and papers on various technology aspects for optical components. He is a Chartered Engineer with the IET and serves as a PI for the IEC's standards working groups on optical amplifiers and dynamic modules. Dr. McClean is a member of the ECOC Technical Sub-Committee on Fibre, Fibre and Free Space Devices, and Fibre Amplifiers. He also serves as an External Industrial Adviser for the WON Industrial Advisory Board and the EE and PE post-graduate Industrial Steering Committee at Aston University. He obtained B.Eng. and M.Eng. degrees in Electronic & Electrical Engineering from the University of Bradford and holds a Ph.D. in Engineering focussing on II-VI thin-film semiconductor device development.